Amendments to the Claims:

The listing of Claims will replace all prior versions and listings of the Claims in the application:

Listing of Claims

1. (Currently Amended) A loudspeaker system for receiving an incoming electrical signal and transmitting an acoustical signal, the loudspeaker system comprising:

a driver circuit having ~~an input with~~ an input impedance, wherein the driver circuit comprises a first passive filter coupled to a first speaker driver and a second passive filter coupled to a second speaker driver; and

a power amplifier having an input and an output, wherein the power amplifier includes a current-feedback amplifier configured to create a desired impedance at the output that is between about 25 percent and about 400 percent of the input impedance of the driver circuit,

the power amplifier comprising a current monitor operable to sense an output current at the output, and a feedback circuit coupled with the current monitor, the feedback circuit operable to generate a feedback signal to create the desired ~~output~~ impedance <u>at the output so that variations in frequency response as a result of impedance changes of the first speaker driver and the second speaker driver are minimized</u>;

wherein the input of the power amplifier receives the incoming electrical signal, and the output of the power amplifier is coupled to the input of the driver circuit.

2. (Original) The loudspeaker system of claim 1, wherein the first passive filter comprises an inductor and a capacitor.

3. (Original) The loudspeaker system of claim 1, wherein the second passive filter comprises an inductor and a capacitor.

4. (Original) The loudspeaker system of claim 1, wherein the first passive filter comprises a Butterworth filter.

5. (Original) The loudspeaker system of claim 4, wherein the first passive filter comprises a fourth-order filter.

6. (Original) The loudspeaker system of claim 1, wherein the first passive filter has an output characteristic termination impedance, the first speaker driver has a cold impedance, and the output characteristic termination impedance of the first passive filter is between about 25 percent and about 400 percent of the cold impedance of the first speaker driver.

7. (Original) The loudspeaker system of claim 6, wherein the second passive filter has an output characteristic termination impedance, the second speaker driver has a cold impedance, and the output characteristic termination impedance of the second passive filter is between about 25 percent and about 400 percent of the of the cold impedance of the second speaker driver.

8. - 9. (Canceled)

10. (Previously Presented) The loudspeaker system of claim 1, wherein the first speaker driver has a cold impedance of about 4 Ohms, the first passive filter has an output characteristic termination impedance of about 4 Ohms, and the output impedance of the power amplifier is between about 1 Ohms and about 16 Ohms.

11. (Previously Presented) The loudspeaker system of claim 10, wherein the second speaker driver has a cold impedance of about 4 Ohms, the second passive filter has an output characteristic termination impedance of about 4 Ohms, and the output impedance of the power amplifier is between about 2 Ohms and about 8 Ohms.

12. (Previously Presented) The loudspeaker system of claim 1, wherein the first speaker driver has a cold impedance of about 8 Ohms, the first passive filter has an output

characteristic termination impedance of about 8 Ohms, and the output impedance of the power amplifier is between about 2 Ohms and about 32 Ohms.

13. (Previously Presented) The loudspeaker system of claim 12, wherein the second speaker driver has a cold impedance of about 8 Ohms, the second passive filter has an output characteristic termination impedance of about 8 Ohms, and the output impedance of the power amplifier is between about 4 Ohms and about 16 Ohms.

14. (Previously Presented) The loudspeaker system of claim 1, further comprising an enclosure, wherein the driver circuit and the power amplifier are each affixed to the enclosure.

15. (Currently Amended) A method of constructing a loudspeaker system for receiving an incoming electrical signal and transmitting an acoustical signal, the method comprising:

selecting a first speaker driver having a first cold impedance;

selecting a second speaker driver having a second cold impedance;

constructing a first passive filter having an input and an output;

constructing a second passive filter having an input and an output;

coupling the output of the first passive filter to the first speaker driver so that the input of the first passive filter has a first combined cold impedance;

coupling the output of the second passive filter to the second speaker driver so that the input of the second passive filter has a second combined cold impedance;

forming a passive arrangement of the first speaker driver, the second speaker driver, the first passive filter and the second passive filter by coupling the input of the first passive filter to the input of the second passive filter, where the passive arrangement has an arrangement cold impedance;

constructing a power amplifier having an input for receiving said incoming electrical signal and an output,

sensing a current on the output <u>of the power amplifier</u> with a current monitor;

setting an output impedance of the power amplifier with a current feedback circuit included in the power amplifier based on the sensed current, where the output impedance is set to be between about 25 percent and about 400 percent of the arrangement cold impedance <u>to minimize changes in frequency response of the first speaker driver and the second speaker driver as the arrangement cold impedance varies</u>; and

coupling the output of the power amplifier to the input of the first passive filter and to the input of the second passive filter.

16. (Original) The method of claim 15, wherein constructing the first passive filter comprises coupling an inductor to a capacitor

17. (Original) The method of claim 15, wherein constructing the second passive filter comprises coupling an inductor to a capacitor

18. (Original) The method of claim 15, wherein constructing the first passive filter comprises constructing a Butterworth filter

19. – 20. (Canceled)

21. (Original) The method of claim 15, wherein selecting the first speaker driver comprises selecting a first speaker driver having a cold impedance of about 4 Ohms.

22. (Previously Presented) The method of claim 21, wherein constructing a power amplifier comprises constructing a power amplifier where the output has an output impedance that is between about 2 Ohms and about 8 Ohms.

23. (Original) The method of claim 15, wherein selecting the first speaker driver comprises selecting a first speaker driver having a cold impedance of about 8 Ohms.

24. (Previously Presented) The method of claim 23, wherein constructing a power amplifier comprises constructing a power amplifier where the output has an output impedance that is between about 2 Ohms and about 16 Ohms.

25. (Previously Presented) The method of claim 15, further comprising constructing an enclosure, and mounting the first and second passive filters, the first and second speaker drivers, and the power amplifier to the enclosure.

26. (Currently Amended) A loudspeaker system for receiving an incoming electrical signal and transmitting an acoustical signal, the loudspeaker system comprising:

an amplification means for receiving said incoming electrical signal at an input and providing an amplified signal that is a function of the incoming electrical signal at an output that has an output impedance;

a first filter means for receiving the amplified signal at an input and providing a first filtered signal that is a function of the amplified signal at an output;

a second filter means for receiving the amplified signal at an input and providing a second filtered signal that is a function of the amplified signal at an output;

a first speaker driver coupled to the output of the first filter means, where the first speaker driver has a first cold impedance and is driven by the first filtered signal; and

a second speaker driver coupled to the output of the second filter means, where the second speaker driver is driven by the second filtered signal;

where the amplification means comprises a current-feedback amplifier configured to set the output impedance of the amplification means to be between about 25 percent and about 400 percent of the first cold impedance <u>to minimize changes in frequency response of the first speaker driver and the second speaker driver as the respective first cold impedance and the second cold impedance changes</u>,

the amplification means further comprising a current monitoring means for monitoring current on the output, and a feedback means for generating a feedback signal to set the output impedance as a function of the monitored current.

27. (Canceled)

28. (Previously Presented) The loudspeaker system of claim 26, wherein the current-feedback amplifier has an output impedance between about 2 Ohms and about 16 Ohms.

29. (Original) The loudspeaker system of claim 26, wherein the first filter means has an output characteristic termination impedance, the first speaker driver has a cold impedance, and the output characteristic termination impedance of the first filter means is between about 25 percent and about 400 percent of the cold impedance of the first speaker driver.

30. (Canceled)

31. (Currently Amended) A loudspeaker system for receiving an incoming electrical signal and transmitting an acoustical signal, the loudspeaker system comprising:

a driver circuit having an ~~cold~~ input impedance;

a current feedback amplifier comprising a current monitor and a feedback circuit, where the current monitor is operable to sense a current at an output of the current feedback amplifier and the feedback circuit is operable as a function of the sensed current to generate a feedback signal to create an output impedance of the current feedback amplifier that is substantially matched to the ~~cold~~ input impedance of the driver circuit so that variation in a frequency response of the driver circuit is minimized as increases in an operational temperature of the driver circuit causes increases in the input impedance.

32. (Currently Amended) A method of operating a loudspeaker system that converts an incoming electrical signal to an acoustical signal, the method comprising:

operating a driver circuit in a temperature range so that an input impedance of the driver circuit is in an operational range;

configuring an output impedance of a current-feedback amplifier with a feedback signal, to be within the operational range of the input impedance of the driver circuit,

generating ~~where~~ the feedback signal ~~is generated~~ based on an output current of the current-feedback amplifier that is being monitored with a current monitor to minimize frequency response variation of the driver circuit as the input impedance changes within the operational range;

amplifying the incoming electrical signal with the current-feedback amplifier to produce a driving electrical signal; and

driving the driver circuit with the driving electrical signal.

33. - 34. (Canceled)

35. (Previously Presented) The loudspeaker system of claim 1, where the power amplifier includes a summer configured to sum the incoming electrical signal and the feedback signal to form the desired impedance at the output.

36. (Canceled)

37. (Previously Presented) The loudspeaker system of claim 1, where the feedback circuit is configured with a transfer ratio that is the same as the desired impedance.

38. (Previously Presented) The method of claim 15, where setting an output impedance of the power amplifier with a current feedback circuit comprises summing the incoming electrical signal with a feedback signal generated by the feedback circuit to create the output impedance.

39. (Previously Presented) The loudspeaker system of claim 26, where the current-feedback amplifier comprises a summer operable to sum the incoming electrical signal and the feedback signal to set the output impedance.

40. (Previously Presented) The method of claim 32, where amplifying the incoming electrical signal comprises summing the feedback signal and the incoming electrical signal to produce the driving electrical signal.

41. (Previously Presented) The loudspeaker system of claim 31, further comprising a speaker enclosure housing the driver circuit and the current feedback amplifier.

42. (Previously Presented) The loudspeaker system of claim 31, where the current feedback amplifier is operable to receive the incoming electrical signal and drive the driver circuit.

43. (New) The loudspeaker system of claim 1, where the impedance changes are a result of heating of the first loudspeaker driver and the second loudspeaker driver, and the current-feedback amplifier is configured to adjust the desired impedance at the output based on the feedback signal to minimize the effect of the heating.

44. (New) The loudspeaker system of claim 1, where the feedback circuit is operable to control the current-feedback amplifier to create the desired impedance at the output based on the output current sensed at the output.

45. (New) The method of claim 15, where setting an output impedance of the power amplifier comprises minimizing the effect of changes in the first cold impedance and the second cold impedance due to respective heating of the first loudspeaker driver and the second loudspeaker driver.

46. (New) The method of claim 15, where setting an output impedance of the power amplifier comprises controlling the output impedance of the power amplifier based on the sensed current.

47. (New) The loudspeaker system of claim 26, where the changes of the first cold impedance and the second cold impedance are a result of heating of the first speaker driver and the second speaker driver, and the output impedance is set with the current-feedback amplifier to minimize the effect of the heating.

48. (New) The loudspeaker system of claim 26, where the feedback means is operable to generate the feedback signal to control the output impedance based on the monitored current.

49. (New) The loudspeaker system of claim 31, where variation in the cold input impedance is a result of heating of the driver circuit, and the output impedance of the current feedback amplifier is set based on the feedback signal to minimize the effect of the heating.

50. (New) The loudspeaker system of claim 31, where the feedback circuit is operable to generate the feedback signal to control the output impedance of the current feedback amplifier based on the sensed current.

51. (New) The method of claim 32, where generating the feedback signal comprises minimizing the effect of changes in the input impedance of the driver circuit due to heating of a loudspeaker driver included in the driver circuit.

52. (New) The method of claim 32, where generating the feedback signal comprises controlling the output impedance of the current-feedback amplifier based on the monitored output current.